



PRE-APPEAL BRIEF REQUEST FOR REVIEW
Expedited Examining Procedure
Examining Group 1714

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of
Jin-Shan Wang, et al.

INK JET COMPOSITION

Serial No.: 09/918,584

Filed: July 31, 2001

Group Art Unit: 1714
Examiner: Callie E. Shosho

I hereby certify that this correspondence is being deposited today with the United States Postal Services as First Class Mail in an envelope addressed to: Commissioner for Patents, Post Office Box 1450, Alexandria, VA 22313-1450

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DATE: 10-26-05

Commissioner for Patents
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Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicants request pre-appeal brief review of the Final Office Action dated 24 August 2005 in the above-identified application. No amendments are being filed with this request. This request is being filed with a Notice of Appeal. The claims are as filed in the Amendment filed 6 June 2005.

37 C.F.R. §1.75(c)

Claims 11-13 are objected to under 37 C.F.R. §1.75(c) as allegedly failing to further limit the subject matter of a previous claim. The objection was first set forth in the Office Action mailed 8 April 2005.

In the Final Office Action, the Examiner has repeated her argument that "there is nothing in claims 11-13 that requires that these substituents do in fact contain such hydrophilic group" (page 4). The Examiner further states:

It is agreed that given that claim 11 depends on claim 1 that claim 11 necessarily contain all the limitations of claim 1. However, this is why it is the examiner's position that claim 11 is broader than claim 1.

Applicants note all of claims 11, 12, and 13 clearly state "The composition of Claim 1 wherein said hyperbranched polymer having a dye chromophore and a hydrophilic

group incorporated into the polymer base chain is prepared by ..." Thus, each objected claim clearly requires the same as claim 1, that the hyperbranched polymer have a hydrophilic group in the polymer base chain.

In each of claims 11-13, the hyperbranched polymer is prepared by chain polymerization, condensation polymerization, or addition polymerization of one or more monomers of a given formula. The Examiner has repeatedly focused on the fact the specification provides definitions for the monomers wherein all components of the monomer may not include a hydrophilic group. For example, at page 4 of the Final Office Action, the Examiner states:

... As set forth on pages 5-6 of the present specification, M^1 and M^2 need not necessarily contain hydrophilic group. . . . Claim 11 requires water-soluble hyperbranched polymeric dye but given that there is nothing in claim 1 which requires that any of the substituents contain hydrophilic group and given that, as seen in the present specification, these substituents need not contain a hydrophilic group, it is clear that claim 11 is broader than claim 1 ... (Emphasis added.)

Though the specification may be examined for clarification of the claims, for example, a definition, the specification can not be read into the claims. The claims clearly require the resultant product, the claimed hyperbranched polymer, have a hydrophilic group incorporated into the polymer base chain. Any portion of the monomer(s) reacting to form the polymer may contain a hydrophilic group. Because the claims require the product to contain a hydrophilic group incorporated into the polymer base chain, one skilled in the art upon reading the claim would understand that the monomers forming the polymer must contain the hydrophilic group.

Claims 11-13 are properly dependent from claim 1, and such dependency, as stated clearly in each of claims 11-13, can not be read out of the claims, as the Examiner is attempting to do. Properly read, the claims incorporate all the features of claim 1, and are not broader than claim 1. The objection to claims 11-13 should be withdrawn.

35 U.S.C. §112, first paragraph

Claims 1 and 10-18 stand rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. In particular, the Examiner contends that the use of the term "hydrophilic group" is not

broadly supported by the specification as filed. See page 3 of the Final Office Action and pages 2-5 of the Office Action mailed 21 September 2004.

The Examiner indicates at page 5, 3rd paragraph, of the Final Office Action:

"... if applicants were to recite that the hydrophilic group is carbonyl, carboxyl, and any other explicitly recited hydrophilic groups as found in the present specification including any specific types of ether and substituted amine groups found in the present specification in claim 1, ***the 35 USC 112, first paragraph rejection would be overcome.***
(Emphasis added.)

Applicants so amended claim 1 in the response filed 8 November 2004, providing support therefore. This was rejected in a final rejection mailed 27 January 2005. Applicants provided further arguments in support of the amendment suggested by the Examiner in a Request for Reconsideration filed 17 February 2005. In response to Applicants' arguments, the Examiner withdrew the rejection (page 2), then asserted a nearly identical rejection (pages 3-6) in the Office Action of 8 April 2005. Thus, despite acceding to the Examiner's request, Applicants claims, in compliance with the Examiner's above statement, remained rejected. Applicants therefore amended the claims in the Amendment filed 6 June 2005 to be identical to those submitted 30 June 2004, and provided arguments at pages 5-8 over the 35 U.S.C. §112, first paragraph, rejection initially presented in the Office Action of 21 September 2004.

Applicants maintain the arguments submitted in the response of 6 June 2005, that the terms "water-soluble" and "hydrophilic" are well known in the chemical arts to have established meanings, and the use of such terms in the claims are supported by the specification as filed, either explicitly, inherently, or implicitly, and would be understood by one of ordinary skill in the art of chemistry to be necessary requirements for the hyperbranched polymeric dye. As such, any rejection under 35 U.S.C. §112, first paragraph, of these terms is improper.

MPEP 2163, relied on by the Examiner, provides the following:

... An applicant shows possession of the claimed invention by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). ...

... The fundamental factual inquiry is whether the specification conveys with reasonable clarity to those skilled in the art that, as of the filing date

sought, applicant was in possession of the invention as now claimed. See, e.g., *Vas-Cath, Inc.*, 935 F.2d at 1563-64, 19 USPQ2d at 1117. ...

... The *absence of definitions or details for well-established terms* or procedures *should not be the basis of a rejection under 35 U.S.C. 112, para. 1*, for lack of adequate written description. ... (Emphasis added.)

Applicants submit the above legal precedents cited by the Examiner support Applicants case for adequate disclosure, as follows. The rejected phrase includes two terms, "water-soluble" and "hydropophilic." Applicant notes these terms are linked as used in the claim, because "hydrophilic" describes a portion of the hyperbranched dye that is labeled "water-soluble." As known to one skilled in basic chemistry, for a substance to be water-soluble, it *must* have hydrophilic groups accessible for interaction with water or a water-like solvent, such as alcohol. Thus, Applicants use of the term "hydrophilic" recites only what is already apparent to one skilled in the art, that is, the presence of a group capable of interacting with water *must be present* in the hyperbranched polymeric dye to make it water-soluble. Because the hyperbranched polymeric dye is formed by reaction of monomers, the hydrophilic groups must be present during and after formation of the hyperbranched polymeric dye. In order to avoid loss of the hydrophilic groups during polymerization, it would be apparent to one of ordinary skill in the art of chemistry that the hydrophilic groups be incorporated into the base chain of one or more monomer forming the polymer, and therefore would be present in the resultant polymer base chain. Examples of reactive monomers used to form the polymers of the claimed invention are set forth in the specification at page 6, line 22, through page 7, line 12, and further exemplified by two specific structures on pages 8 and 9, and by the hyperbranched polymeric dyes set forth in the Examples at page 11, line 19, through page 12, line 29. As presented in previous responses, the hydrophilic group can be in any portion of the monomers forming the polymeric base chain, but are not formed by reaction of two monomers.

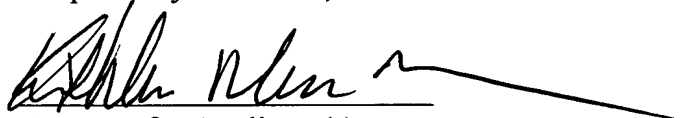
As indicated above, the presence of hydrophilic groups in the polymeric base chain is indicated within the specification, both expressly through the exemplary structures and exemplified inventive dyes, and implicitly and/or inherently as necessary for formation of a water-soluble substance, as would be recognized by one of ordinary skill in the art of chemistry. Therefore, the question becomes whether the term "water-soluble" is adequately supported by the specification as filed.

As described in the specification at page 2, lines 12-13, and as known to one of ordinary skill in the art of chemistry, "[a] dye is a colorant which is dissolved in the carrier medium" (emphasis added). It is well known in the chemical arts that when something is "dissolved," no particulate form remains in the solution. Because the claimed colorant is a dye, it must be capable of being dissolved in the carrier medium of the ink jet ink. The carrier medium provided by the claimed invention is water, and optionally water-miscible organic solvents such as alcohols, ketones, ethers, etc., as listed in the specification at page 9, line 22, - page 10, line 7. By definition of the term "dissolved," the hyperbranched polymeric dye must be water-soluble, as set forth in the specification, and as would be apparent to one of ordinary skill in the art of chemistry. The specific examples of suitable hyperbranched polymers useful in forming the hyperbranched polymeric dye as listed, for example, in the specification at least at page 4, lines 14-19, and page 7, lines 13-16, are water-soluble polymers. The lack of particle formation upon forming the claimed ink jet ink using a hyperbranched polymeric dye of the invention was confirmed in the Declaration of co-inventor Huijuan Chen submitted April 16, 2004.

The terms "water-soluble" and "hydrophilic" are well known in the chemical arts to have established meanings, and the use of such terms in the claims are supported by the specification as filed, either explicitly, inherently, or implicitly, and would be understood by one of ordinary skill in the art of chemistry to be necessary requirements for the hyperbranched polymeric dye. For at least the above reasons, the rejection under 35 U.S.C. §112, first paragraph, should be withdrawn.

A prompt and favorable action in response to this request is earnestly solicited.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.